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IN THE

Supreme Court of the United States

OCTOBER TERM, 1971

No. 71-958

AKTIEBOLAGET FLYMO, ET AL., *Petitioners,*

v.

JOHN F. CODY, ET AL., *Respondents.*

PETITION FOR WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE DISTRICT OF COLUMBIA CIRCUIT

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PETITION FOR WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE DISTRICT OF COLUMBIA CIRCUIT

Petitioner prays that a writ of certiorari issue reviewing the judgment of the Court of Appeals for the District of Columbia Circuit entered in the subject case on September 9, 1971.

THE OPINION BELOW

The September 9, 1971 judgment of the Court of Appeals No. 23575 in a split decision now sought to be reviewed is appended and is reported in 171 USPQ 206 and the June 19, 1969 opinion of the District Court

for the District of Columbia, Civil 1651-67, is appended and reported in 306 F. Supp. 728, 163 USPQ 607. A petition for Rehearing to the Court of Appeals, lodged by Petitioners on September 23, 1971, was denied in a split decision November 2, 1971 (appended).

The original findings of the United States Patent Office Board of Interference Examiners dated March 23, 1967 and finding upon reconsideration dated June 1, 1967 are also appended, together with Petitioners Patent 3,110,996 involved in these proceedings.

JURISDICTION

By order of the Court of Appeals, September Term, 1971, appended, the mandate is stayed for 90 days from November 2, 1971 to permit filing of this petition.

The jurisdiction of this Court is invoked under 28 USC 1254(1).

QUESTIONS PRESENTED FOR REVIEW

1. When an expert Administrative Body fully authorized by Congress and skilled in a specialty gives a full hearing and makes a finding of facts in a contested proceeding, to what extent is the finding of facts binding upon a Federal Court on review, without new evidence in a trial de novo?

2. Can a finding of facts be set aside upon Summary Judgment in a District Court contrary to the provisions of the Administrative Procedure Act, 80 Stat. 250; Title 5, Chapter 7, Section 706, which specifically provides a trial de novo as the procedure of 'setting aside the action' if the "findings and conclusions are found to be—unwarranted by the facts to the extent that the facts are subject to trial de novo by the reviewing court."?

3. Does the Circuit Court interpretation of the decision in *Morgan* v. *Daniels*, 153 US 120 (1894), that a decision in the Patent Office "must be accepted as controlling upon that question of fact in any subsequent suit between the same parties unless *the contrary is established by testimony* which in character and amount carries thorough conviction," (emphasis added) authorize a District Court on Summary Judgment to overturn a finding of fact in the Patent Office without presentation of any new testimony to establish the contrary?, Can a new interpretation be placed upon this case consistently followed since 1894 by the Circuit Court without a Ruling by the Supreme Court?

4. Can a Federal Court overrule findings of fact in a summary review of an administrative judicial proceeding without a trial de novo?

5. Does the Supreme Court decision *Morgan* v. *Daniels* as the Circuit Court interprets it establish a "direct refutation of the theory that the presentation of new evidence is a prerequisite to the trial court's consideration of whether the Board's factual conclusions are erroneous"?

STATUTES AND LAWS INVOLVED

35 USC 135, a jurisdictional statute provides that "The question of priority of invention shall be determined by a board of patent interferences (consisting of three examiners of interferences) whose decision, if adverse to the claim of an applicant, shall constitute the final refusal by the Patent Office of the claims involved" and affords that "Any discretionary action of the Commissioner under this subsection shall be reviewable under Section 10 of the Administrative Procedure Act (Amended October 15, 1962, Public Law

87-831, 76 Stat. 958)." (Now Public Law 89-487, 80 Stat. 250).

35 USC 146, a further jurisdictional statute provides that any party dissatisfied with the decision of the board of patent interferences on the question of priority may have remedy by civil action with a trial de novo.

80 Stat. 250, Federal Administrative Procedure Act, Title 5, Section 706, Judicial Review Subsection (e), Scope of Review provides only for review of questions of law and not findings of fact and sub-section (6) should be interpreted that if a finding is unwarranted by the facts then a trial de novo is the exclusive manner of proceeding in the reviewing court.

The Supreme Court ruling in *Morgan* v. *Daniels*, long standing and followed frequently and consistently since 1894 provides that

> "Upon principle and authority, therefore, it must be laid down as a rule that where the question decided in the Patent Office is one between contesting parties as to priority of invention, the decision there made must be accepted as controlling upon that question of fact in any subsequent suit between the same parties, unless the contrary is established by testimony which in character and amount carries thorough conviction."

STATEMENT OF THE CASE

Long after Petitioner's patent issued on November 18, 1963 Respondent requested an interference proceeding in the Patent Office. The Patent Office ruled for Petitioner in a primary decision and upon reconsideration. Respondent under jurisdictional provisions of 35 USC 146, went to the District Court of the District

of Columbia for review and made a motion for summary judgment on the record which was granted in a decision overruling the finding of facts in the Patent Office which had resulted in an award of priority to Petitioners.

The invention involved is found by the trial judge to be "potentially a basic development of considerable consequence in the absence of prior art" and involves a lawn mower which has no wheels and rides by an air cushion effect on the grass without blowing it flat so that the grass may be cut by a rotary blade.

The Court held as a matter of fact contrariwise to the Patent Office that Respondent's mower involved cut grass satisfactorily and "Efficiently cannot be questioned", whereas the Patent Office had held "We do not find from the record that the results of the machine built in 1960 were acceptable—it has not been proved by a preponderance of the evidence that the machine's operation was satisfactory." Upon reconsideration the Patent Office held "just cutting grass, without regard to its effectiveness is insufficient proof".

Upon review of the Court of Appeals, the District Court decision was sustained in a split decision on the majority rule that a summary judgment was a proper method of overruling findings of fact in the Patent Office without introduction of new evidence.

The dissenting judge assigned error to the entry of summary judgment on the basis that a judgment could not be made without the determination of the Court as a fact finder and, thus, would remand the case to the District Court for findings of fact after trial.

The Court of Appeals interpreted *Morgan* v. *Daniels* to be an authority that the presentation of new evidence

to the trial court need not be a prerequisite to the trial court in determining factual conclusions of the Patent Office are erroneous.

Petitioner has not been able to find any past authority for this interpretation which is contrary in result to other Supreme Court rulings hereinafter discussed.

ARGUMENT—REASONS FOR GRANTING THE WRIT

A. *Importance of the Case* The magnitude of judicial procedure in Federal Administrative Agencies is so extensive that it is a matter of primary public concern to establish clear and unequivocable standards of review of findings of facts in Administrative Judicial Proceedings by the Federal Courts, and the procedure by which administrative findings of facts may be overturned. The establishment of a precedent contrary to past Supreme Court holdings in the Federal Courts now permitting a Federal District Court upon summary judgment of new facts would impose a hampering restriction upon the functioning of the administrative process and prevent such agencies from making "final" findings of fact based upon the administrative procedure.

The reasons for conferring upon an agency such as the Patent Office of a typical judicial function by Congress is the expectation that problems which would be encountered would be of a technical and specialized nature, calling for technical experience and training which a court might not possess, to thereby perform more satisfactorily than a court the task of making findings of fact in the special field over which it is given jurisdiction. Thus, findings of fact should be binding upon the courts when supported by testimony. (Gerard C. Henderson, The Federal Trade Commission, Yale

University Press, 1924 pp. 92-102.) In the Patent Office the Examiners on the Board of Interferences are persons of competent legal knowledge and scientific ability exclusively assigned to interference proceedings.

Dobson v. *Commissioner of Internal Revenue* (1943), 320 US 489, 64 S. Ct. 239, held in the Tax Court, an expert body operating similarly to the Board of Interferences upon a matter involving both law and facts, that: "when the court cannot separate the elements of a decision so as to identify a clear-cut mistake of law, the decision of the Tax Court must stand." In the present circumstances, it is admitted by both the District and Appeals Courts that findings of fact were made.

A long line of Supreme Court cases holds that when a conclusion is supported by evidence it is accepted as final, and "the courts will not examine the facts further than to determine whether there was substantial evidence to sustain the order." *Interstate Commerce Commission* v. *Union Pacific Railroad Co.*, (1912), 222 US 541, 32 S. Ct. 108.

It is clear that the legislative body determines the policy as to what administrative findings of fact shall be made final. Thus, when such bodies are created with power to investigate and determine facts, "such administrative findings on issues of fact are accepted by the court as conclusive if the evidence was legally sufficient to sustain them and there was no irregularity in the proceedings." *Phillips* v. *Commissioner of Internal Revenue* (1931), 283 US 589, 51 S. Ct. 608.

It is therefore a matter of great public importance and a proper basis for issuance of a writ of certiorari to ascertain a clear line of demarcation between the functions of the legislative, judicial and administra-

tive bodies in the matter of review of findings of fact in connection with specialty fields.

B. *Uniformity of Decisions and Conflicts of Law*

If a Supreme Court decision is interpreted by a Circuit Court in a manner not originally held, and if such interpretation is inconsistent with other Supreme Court decisions, then a proper ground exists for issuance of a writ of certiorari. In the instant case, contrary to the Holdings of *Dobson* v. *Commissioner of Internal Revenue*, *Interstate Commerce Commission* v. *Union Pacific Railroad Co.*, and *Phillips* v. *Commissioner of Internal Revenue*, *supra*, the Circuit Court has interpreted that the *Morgan* v. *Daniels* holding that the decision of the Patent Office must be accepted as controlling "unless the contrary is established by testimony which in character and amount carries thorough conviction" stands "as direct refutation of the theory that the presentation of new evidence is a prerequisite to the trial court's consideration of whether the Board's factual conclusions are erroneous," and holds therefore that a summary judgment proceeding without a trial de novo or new evidence can summarily overrule the expert findings of fact below.

It is proposed that a precedent such as this interpretation changes the entire weight granted by legislature to administrative agency proceedings in general, and thus, the decision should be reviewed on a writ of certiorari because the judiciary cannot lawfully exercise legislative powers or change the scope of legislation.

As a matter of fact the Circuit Court in this matter has expressly held contrary to the *Morgan* v. *Daniels* Supreme Court holding, to wit:

> "Indeed, the variety of opinion expressed by the different officers who have examined this testimony

> is persuasive that if the question of priority is doubtful, and if doubtful the decision of the Patent Office must control"

The conclusions of the majority has refused to follow this ruling, since the Patent Office on two occasions, supported by the dissenting Circuit Court judge, held on the question of priority for Petitioner.

The second circuit in *Radio Corporation of America* v. *Radio Engineering Laboratories, Inc.*, 66 F2 768, states specifically the Supreme Court itself must alter the holding of the *Morgan* v. *Daniels* decision if it is to be changed.

The Federal Administrative Procedure Act section on Judicial Review (which covers this action under 35 USC 135) grants the court's upon review only the power to set aside agency action found to be "unwarranted by the facts to the extent that the facts are subject to trial de novo by the reviewing court."

Thus, if the decision stands it appears contrary to the intent of the Legislature.

C. Scope of jurisdiction of the Federal Circuit Courts in considering questions of fact and not questions of law only.

The Federal Administrative Procedure Act defines the (e) Scope of Review not to include findings of fact but review of questions of law:

> So far as necessary to decision and where presented the *reviewing court shall decide all relevant questions of law,* interpret constitutional and statutory provisions, and determine the meaning or applicability of the terms of any agency action—*and set aside agency action,* findings, and conclusions *found to be* (1) arbitrary, capricious, an abuse of

discretion, or otherwise not in accordance with law, or (6) *unwarranted by the facts to the extent that the facts are subject to trial de novo by the reviewing court.* (emphasis added)

The decisions cited above all support the review of findings of law upon review but not the findings of fact.

The Court of Appeals states "The only factual issue in dispute was the ultimate question whether appellant's showing constituted an actual reduction to practice. The District Court took issue with the Board both as to its factual conclusions and with respect to its reliance on *Elmore*. We agree with the court on both accounts."

Thus, a writ of certiorari should be issued on the basis that the Court of Appeals has exceeded its statutory authority and is limited to finding errors of law and cannot enter without trial de novo or new factual evidence decisions on the facts.

35 USC 146 provides for a trial de novo in the Federal District Court if a party is dissatisfied with the Patent Office decision in an interference proceeding, but nothing therein permits the Court to overrule the findings of facts by the Patent Office on the record without new evidence or a trial de novo.

In *National Labor Relations Bd.* v. *Waterman SS Corp.*, 309 US 206, 60 S.Ct. 493, under somewhat similar circumstances it was held a matter of high importance affecting the interest of the nation and proper to grant a writ of certiorari where a United States Circuit Court of Appeals has exceeded its proper function of determining questions of law only, and has invaded the authority conferred upon an Administrative

Agency by Congress to make findings of fact. The Supreme Court there stated:

> "It is of paramount importance that courts not encroach upon this exclusive power of the Board (findings of facts if supported by evidence shall be conclusive) if effect is to be given the intention of Congress to apply an orderly, informed and specialized procedure to the complex administrative problems arising in the solution of industrial disputes. As it did in setting up other administrative bodies, Congress has left questions of law which arise before the Board but not more ultimately to the traditional review of the judiciary."

CONCLUSIONS

It has been shown that this is an important case with a split decision of the Circuit Court involving matters of great public interest, that there are conflicts of laws and interpretations of opinions of this court involved in the Circuit Court findings and the scope of the review and overturning of facts found in a judicial administrative proceeding exceeded the scope of authority given the Circuit Court, and therefore, it is respectfully petitioned that a writ of certiorari should be granted.

Respectfully submitted,

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APPENDIX

UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT

No. 23,575

JOHN F. CODY, ET AL.

v.

AKTIEBOLAGET FLYMO, ET AL., APPELLANTS

Appeal from the United States District Court
for the District of Columbia

Judgment entered this date—Decided September 9, 1971

Messrs. Lawrence R. Brown and *John H. Lewis, Jr.*, for appellants.

Messrs. George M. Hopkins and *Edwin L. Reynolds* for appellees. *Mr. Lawrence L. Colbert* also entered an appearance for appellees.

Before McGOWAN and ROBINSON, *Circuit Judges*, and CHRISTENSEN,* United States District Judge, District of Utah.

Opinion filed by McGOWAN, *Circuit Judge*.
Dissenting opinion filed by CHRISTENSEN, *District Judge*.

McGOWAN, *Circuit Judge:* This is an appeal from a reversal by the District Court in a patent inference case

* Sitting by designation pursuant to 28 U.S.C. § 292(c).

of a ruling of the Board of Patent Interferences. We are confronted on this appeal with difficult questions regarding both the procedural propriety of the District Court's decision, and, given the applicable burden of proof and standard of review, the sufficiency of appellees' proof of reduction to practice. We are also called on by appellants to decide two issues, resolved neither in the Patent Office nor in the District Court, relating to the patentability of appellees' invention. For the reasons stated below, we affirm the judgment of the District Court.

I

Appellants are Aktiebolaget Flymo, a Swedish corporation; and Karl R. Dahlman, an inventor and himself a resident of Sweden. Appellees John Cody and George Sites are the inventors of one of the devices in question in this case. That invention, claimed by both parties, is a wheelless lawn mower sustained at the appropriate level above the ground on a thin cushion of air. Appellants filed their patent application on March 12, 1962 and, because they were the first to file on the device, took on the status of "senior party" in these proceedings. Appellees, the "junior party" herein, filed their application on November 7, 1962, some seven months after appellants' filing. On November 19, 1963, while the applications were co-pending, the Patent Office awarded a patent to appellants.

Several months thereafter, in conformance with applicable procedures for creating an interference, appellees amended their original application. Claiming that their device fitted the desciptions of appellants' invention, they copied thirteen claims for the recently issued patent and requested that interference proceedings be instituted. On March 1, 1965, following the additional filing by appellees of several necessary supplemental affidavits, the Examiner of Patent Interferences declared an interference as to three

of the thirteen claims. Those claims, constituting the pertinent counts in interferences, are reprinted in the margin.[1]

The central issue between the parties, as in all patent interferences, was whether the one or the other was the original inventor of the grass cutting machine. Resolution of that issue depends upon the determination as to which

[1] Count No. 1 (Appellants' Claim No. 2 from patent; Appellees' Claim No. 13 from amended application):

> "A grass cutting machine comprising a housing having a bottom opening, the peripheral edge of which is located substantially in a plane, a rotary air impeller mounted on a shaft in said housing, a rotary cutter mounted in said housing below said air impeller on the same shaft, and driving means for said rotary air impeller and said rotary cutter, said air impeller being constructed to expel air through said bottom opening along paths and at rates suitable for slightly elevating said housing and parts carried thereby from the ground by ground effect."

Count No. 2 (Appellants' Claim No. 5 from patent; Appellees' Claim No. 16 from amended application):

> A grass cutting machine comprising a hood having a top cover portion and a skirt portion, the latter being substantially shaped as a vertically disposed cylinder terminated at its bottom with a supporting rim, a motor attached to said top cover portion, said motor having a vertical shaft extending into the space within said skirt portion, an air impeller mounted on said shaft below said air impeller, an air inlet opening disposed eventrally of said top cover portion, said air impeller being constructed to suck in air through said air inlet opening and to expel said through the open bottom of said hood at a rate sufficient to slightly elevate the assembly of said hood, motor air impeller and rotary cutter from the ground by ground effect."

Count No. 3 (Appellants' Claim No. 12 from patent; Appellees' Claim No. 23 from amended application):

> "A wheeless grass cutting machine having a power driven rotary cutter and commonly driven air impelling means for producing ground effect to support said machine on a cushion of air at a distance above the ground."

party first, in point of time, reduced his invention to practice. Appellants relied on March 16, 1961, the date on which their invention had been made the subject of a patent application in Sweden, as their earliest date of constructive reduction to practice.[2] Appellees, seeking to best appellant's showing, relied on tests conducted in the spring and fall of 1960 as evidencing a prior reduction to practice. It was upon the sufficiency of their showing on that score that the question of priority turned.

As the junior party in interference, appellees' burden before the Board of Patent Interferences was to establish their claim of prior reduction to practice by a preponderance of the evidence.[3] Consistent with the standard practice in such proceedings, all of appellees' evidence was submitted in deposition and exhibit form. 37 C.F.R. §§ 1.251-57, 1.271-81 (1971). Although appellants submitted no direct evidence, their counsel was present when depositions were being taken and briefly cross-examined several of appellees' witnesses. After hearing oral argument, the Board of Patent Interferences held in appellants' favor on March 23, 1967. The Board's findings emphasized that appellees had failed to demonstrate that the lawnmower they built in 1960 operated in an acceptable manner for its intended purpose, *i.e.*, they failed to meet their burden of

[2] The procedure for relying on a foreign application is set out in Rule 216(c) of the Patent Office Rules of practice, 37 C.F.R. § 1.216(c) (1971). See A. Deller, Walker On Patents § 204, at 295 (1st ed. 1939).

[3] The rules regarding burdens of proof in such proceedings in the Patent Office are well established. If the junior party files his application *after* the patent is awarded to the senior party he must demonstrate his reduction to practice beyond a reasonable doubt. If, as was the case here, the junior party files his application *before* a patent issues to the senior party, the customary preponderance test applies. *See, e.g.*, O'Connor v. Joris, 241 F.2d 944, 946, 953 (C.C.P.A. 1957); Pierre v. Harvey, 233 F.2d 337, 338 (C.C.P.A. 1956).

proof on the question of priority. The Board reaffirmed its position two months later in a short opinion denying appellees' request for reconsideration.

Faced with the statutory alternatives of appealing the Board's ruling to the Court of Customs and Patent Appeals[4] or bringing a civil action in the District Court[5] appellees elected to pursue the latter course. Following the filing of the law suit, and after the passage of nearly two years of preliminary sparring between the parties, appellees filed a motion for summary judgment. Appellants opposed the motion and filed a summary judgment motion of their own, requesting, in the alternative, that the court either affirm the Board or, if it were to conclude that the junior party had met his burden before the agency, to consider appellants' two claims that the device in question was not patentable to appellees in any event. By Memorandum Opinion dated June 19, 1969 and Order of Judgment dated July 7, 1969, the District Court granted appellees' motion, reversed the Board, and remanded the case. The court refused to pass on the two patentability questions raised by appellants on the grounds that they had not been "developed in any detail before the Board" and that such matters were not within the scope of review of questions of priority of invention.[6] This appeal followed.

II

Before addressing ourselves to the substantive issues—priority and patentability—in this case, we consider two preliminary questions. First, what measuring rod or standard of review has been established to guide the district courts in scrutinizing the Board's actions in these some-

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[4] 35 U.S.C. § 141 (1964).

[5] 35 U.S.C. § 146 (1964).

[6] Cody v. Aktiebolaget Flymo, 163 USPQ 607, 608 (D.D.C. 1969) (*see* note 19 *infra*).

what unusual *de novo* proceedings? Second, given that standard of review, can disposition, short of a full evidentiary hearing, by way of summary judgment ever be appropriate in a case in which the Board's conclusion is to be overturned?

A Supreme Court precedent, which has been consistently applied by the federal courts in reviewing the Board's interference rulings for over seventy years, provides the cornerstone for our consideration of the first question. In *Morgan* v. *Daniels*, 153 U.S. 120, 125 (1894), the Court in a unanimous opinion held:

> "Upon principle and authority, therefore, it must be laid down as a rule that where the question decided in the Patent Office is one between contesting parties as to priority of invention, the decision there made must be accepted as controlling upon that question of fact in any subsequent suit between the same parties, *unless the contrary is established by testimony which in character and amount carries thorough conviction.*"

(Emphasis supplied.) The applicability of this "thorough conviction" standard to the district court's deliberations in such cases can hardly be questioned.[7] Appellants acknowledge that standard, and argue that it was not satisfied here, and indeed can never be satisfied in the absence of the presentation to the district court of *new evidence* not previously considered by the Board. Stated differently, the argument is that the Board's factual conclusions in an interference proceeding are conclusive on the district court if the dissatisfied party elects, as here, to rely on the record made before the Board.

The notion that a new-evidence test inheres in *de novo* review proceedings finds its source in the statutorily es-

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[7] *See, e.g.*, United States v. Szuecs, 100 U.S.App.D.C. 24, 240 F.2d 886 (1957); Radio Corp. of America v. International Standard Elec. Corp., 232 F.2d 726, 729 (3d Cir. 1956).

tablished alternate routes of appeal open to a party dissatisfied with a Patent Office decision. He may either appeal to the Court of Customs and Patent Appeals, 35 U.S.C. §§ 141-44, or file a civil action in the district court, 35 U.S.C. § 146. Should he do the former, the statute makes clear that the Court of Patent Appeals "shall hear and determine such appeal *on the evidence produced before the Patent Office.*" 35 U.S.C. § 144 (emphasis supplied). When one chooses to proceed in the district court, however, his proof may carry him well beyond the confines of the administrative record.

It is this difference regarding the comparative scope of the matters the two tribunals may consider which meaningfully distinguishes the one from the other, and often is the determinative factor in the dissatisfied party's choice of forum. That this factor lies at the center of the differences between the two alternatives is evidenced by the Supreme Court's discussion in *Hoover* v. *Coe*, 325 U.S. 79, 83 (1945):

> "It is evident that alternative rights of review are accorded an applicant—one by appeal to the United States Court of Customs and Patent Appeals, and the other by bill in equity filed in one of the federal district courts. In the first the hearing is summary and solely on the record made in the Patent Office; in the other a formal trial is afforded on proof which *may* include evidence not presented in the Patent Office." (Emphasis supplied.)

In its examination of the legislative history of these review statutes, the Court noted that in 1927 an effort was made in Congress to abolish one alternative or the other but that it proved unsuccessful, thus "saving to litigants the option of producing new evidence in a court, by retaining the equity procedure." *Id.* at 87.

As a practical matter there would appear to be little incentive for a party to come into the district court unless

the contemplated a further evidentiary presentation. Initially, as reflected in the following exchange between court and counsel at the summary judgment hearing, that consideration seems to have occasioned appellees' decision to come into the District Court in this case:

> "[COUNSEL FOR APPELLEES]" I asked for reconsideration . . . and was refused. . . . Then I took an appeal to the District Court for the District of Columbia. I contemplated going to the Court of Customs and Patent Appeals, but since I could put on additional proof as to the fact that this machine was cutting grass all over
>
> "THE COURT: Yes, that is why we get a lot of them.
>
> "[COUNSEL]: I came to you folks.
>
> "THE COURT: I understand that."[8]

We can only speculate as to the circumstances that led appellees to change their tack and to rely on the administrative record, but, whatever those reasons might have been, we doubt the wisdom of a rule that would either force them to go to trial and produce new evidence or to suffer the conclusive resolution against them of all questions of fact.

We find that *Morgan* v. *Daniels* itself stands as direct refutation of the theory that the presentation of new evidence is a prerequisite to the trial court's consideration of whether the Board's factual conclusions are erroneous.

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[8] Appellants, focusing on this brief exchange, have argued that it demonstrates that appellees were, in essence, subverting the administrative process by withholding relevant evidence from the Board and then planning to introduce it later in the trial court. While we agree that parties must not be permitted to raise new issues or to submit evidence omitted at the agency level out of negligent disregard for the administrative process, we do not place so sinister an interpretation on appellees' conduct here. *See* DeSevesky v. Brenner, 137 U.S.App.D.C. 369, 424 F.2d 857 (1970).

That case is similar to our own in that no evidence was presented to the court there that had not been brought out in the interference proceeding. *Id.* at 122. Nevertheless, the Court did exactly what appellants argue the District Court in our case was without authority to do: it examined *all* the evidence and measured its sufficiency under the "thorough conviction" test. The language of the Court's concluding paragraph is particularly instructive:

> "It is enough to say that the testimony *as a whole* is not of a character or sufficiency to produce a clear conviction that the Patent Office made a mistake in awarding priority of invention to the defendant."

Id at 129 (emphasis supplied). The implication is unmistakably clear that had that evidence carried thorough conviction even though none of it was "new evidence"—the Patent Office's ruling would have been overturned.

Appellants have relied on several cases in this jurisdiction in support of their contention that an evidentiary showing going beyond that presented before the Board is essential.[9] In none of those cases, however, was the failure to produce new evidence the determinative factor, *i.e.*, those cases cannot be read to hold that, but for the absence of new evidence, the court might have reversed the Patent Office. Those were all cases, to the contrary, in which nothing presented to the district court—either old or new was supportive of a conclusion that, under the thorough conviction standard, the Board had erred. More importantly, all of those cases purport to rely on this court's discussion of the *Morgan* v. *Daniels* test in *Esso Standard Oil Co.* v. *Sun Oil Co.*, 95 U.S.App.D.C. 154, 158-59, 229 F.2d 37, 41-42 (1956), *cert. denied*, 351 U.S. 973 (1956).

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[9] Pro-Col Corp. v. Commissioner of Patents, — U.S.App.D.C. —, 436 F.2d 296 (1970); National Distillers & Chem. Corp. v. Brenner, 128 U.S.App.D.C. 386, 389 F.2d 927 (1967); Hays v. Brenner, 123 U.S.App.D.C. 96, 357 F.2d 287 (1966); Zenith Radio Corp. v. Ladd, 114 U.S.App.D.C. 54, 310 F.2d 859 (1962).

We, too, rely on that case and find its language dispositive of the case before us.

Esso was an appeal from a Patent Office ruling in a trademark case in which the only substantial issue was whether two trademarks were confusingly similar. The Patent Office held that they were confusingly similar, but upon *de novo* review in the district court that decision was reversed. After establishing that the thorough conviction standard of review applied in such cases, this court reviewed all the evidence and concluded that neither the new evidence nor the evidence of record before the Patent Office supported the district court's decision.

> "We find no basis, therefore, for the action of the trial court in overturning the ruling of the Patent Office. Certainly there was no evidence to the contrary which 'carries thorough conviction,' as the Supreme Court has told us there must be. Morgan v. Daniels, supra. The evidence before the District Court was the same as that before the Patent Office, except for certain additional evidence 'not of a kind to change the result.' . . . In such a case, the Patent Office ruling should normally be followed. *Of course, if the decision of the Patent Office is not warranted on the evidence before it*, or if the new evidence reaches the necessary standard, the District Court may rule as the totality of the evidence may require. But the present is not such a case."

97 U.S.App.D.C. at 158-59, 229 F.2d at 41-42 (emphasis supplied).[10] It should be clear, then, that the failure to

[10] See, e.g., California Research Corp. v. Ladd, 123 U.S.App.D.C. 60, 65, 356 F.2d 813, 818 (1966); Pierce v. Watson, 107 U.S.App. D.C. 226, 228, 275 F.2d 890, 892 (1960); Potter Instrument Co. v. Mohawk Data Sciences Corp., 309 F.Supp. 866, 867 (S.D.N.Y. 1969) (Patent Office record forms the "nucleus of the evidence before the District Court," but "additional evidence may be submitted").

introduce additional evidence cannot, by the force of that circumstance alone, be conclusive against the party challenging the Board, and it should further be apparent that the thorough conviction inquiry must focus on the whole record.[11]

Given this standard of review, the second related question—whether the dissatisfied party may attempt to meet that burden in a summary judgment proceeding—raises no difficulties. We are unable to find fault with the use of summary judgment under the peculiar circumstances presented in cases like the one before us. The only factual issue in dispute was the ultimate question whether appellants' showing constituted an actual reduction to practice. Neither party had additional testimonial or tangible evidence that he wished to present to the court.[12] Although appellants opposed appellees' motion for summary judg-

[11] We are fortified in our conclusion on this score because of the serious opportunity for injustice present under appellants' new-evidence theory. The two alternative review provisions discussed above, in addition to permitting the dissatisfied party to choose his forum in the first instance, also provide that, if the dissatisfied party appeals to the Court of Customs and Patent Appeals, his adversary has the power to demand that the case be heard instead by the district court. 35 U.S.C. § 141 (1964). Essentially that proviso means that the appellee in an interference review can *compel* the dissatisfied party to seek *de novo* review in the district court. *See* Tiblets Industries, Inc. v. Knowles Electronics, Inc., 386 F.2d 209, 212 (7th Cir. 1967), *cert. denied*, 390 U.S. 953 (1968). Under appellants' theory, if the dissatisfied party wished only to challenge the propriety of the Board's findings on the record and had no new material to proffer, he could not prevail. Therefore, by effecting a change of forum, the appellee could impose a higher, and in some cases insurmountable, standard of review.

[12] This is not, therefore, a case in which it could fairly be argued that the litigants had been cut off from their right to a trial on genuine unresolved factual issues. *See, e.g.*, Sartor v. Arkansas Nat. Gas Corp., 321 U.S. 620, 627 (1944).

ment, they did not contend that there were material issues of fact in dispute, but simply contended that appellees, relying as they were on the Patent Office record, had not met their burden of proof on the critical issue of priority. Certainly nothing that eventuated during the hearing before the district judge could have alerted him to any existing opposition to his resolution of the merits of the case on the basis of the material before him.[13]

With the case in this posture our holding in *Fox v. Johnson & Winsatt, Inc.*, 75 U.S.App.D.C. 211, 218-19, 127 F.2d 729, 736-37 (1942), would seem to bear conclusively on this question.

> "There was conflict concerning interpertation of the facts and the ultimate conclusion to be drawn from them. . . . But there was none as to the facts themselves. In other words, the evidentiary facts were not substantially in dispute. . . . Conflict concerning the ultimate and decisive conclusion to be drawn from the undisputed facts does not prevent rendition of a summary judgment, when the conclusion is one to be drawn by the court. The court had before it all the facts which formal trial would have produced. Going through the motions of trial would have been futile."

See also 3 BARRON & HOLTZOFF, FEDERAL PRACTICE & PROCEDURE § 1234, at 128 (1958).

III.

On the merits of the reduction to practice issue we have reviewed the record and find that, under the applicable thorough conviction standard, the District Court's decision

[13] We hold here only that summary judgment was not improper on the reduction to practice issue. The peculiar procedural stance of the two subsidiary issues concerned with patentability will be discussed in Part IV of this opinion.

is well supported. Demonstration of actual reduction to practice requires proof here by a preponderance of the evidence before the Board of two general elements: (1) the grass-cutting machine must have been embodied in a physical or tangible form containing every essential element of the invention as defined in the counts in interference;[14] and (2) the machine must be shown to have operated effectively for its intended use. *See*, C. Reese & A. Caesar, Interference Law and Practice, §§ 31-32, at 395-97 (1940).

The Board of Patent Interferences found, on the first issue, that sufficient proof had been submitted to conclude that the "flying" lawnmower was actually built in the spring of 1960 and that it contained, at that time, "every feature of the invention as defined in the counts." On the second issue, however, the Board found that the junior party had failed to prove that the machine operated "effectively" or "satisfactorily." Greatest emphasis was placed on the fact that the inventors continued after their 1960 tests to experiment with a great number of different component parts. On the request for reconsideration the Board again stated that, while some grass was cut in 1960, those experiments offered the inventors nothing more than encouragement and reason to predict that "the invention would probably be successful if and when it could be put to practical use." Emphasizing its reliance on *Elmore v. Schmitt*, 278 F.2d 510 (C.C.P.A. 1960), the Board held that reduction to practice required more than "a mere basis for prediction." The District Court took issue with the Board both as to its factual conclusions and with respect to its reliance on *Elmore*. We agree with the court on both accounts.

The pertinent deposition and exhibit evidence can be briefly summarized. The two inventors, John Cody and George Sites, were not inventors by trade and worked on their machine only during their off-work hours. Cody was

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[14] *See* note 1 *supra*.

an agricultural pilot and was able to secure space in a hangar at the airport in which they could work on the mower and store their tools and equipment. Because neither man had a great deal of money, many parts of the machine were made out of discarded scrap metal and any other readily available materials. The numerous propellors experimented with, for instance, were all handcarved,[15] and a washtub was used as the mold for forming the fiberglass shell which was to function as the housing.

Five witnesses, including the inventors, testified to having seen the experiments conducted in the spring or fall of 1960. Cody testified that his mower did cut grass in the experiment conducted in field near the airport in the spring of 1960. He stated that "the machine flew and operated satisfactorily; . . . the machine did fly and did operate; . . . we were very pleased with the results of it." In addition to the airport trial, Cody stated that another successful test was conducted at a farm in the fall of 1960. His testimony also includes references to some of the problems they confronted. He indicated that they were not getting a cut over the full length of the blade but that the machine was cutting more toward the center of the blade. This problem, and to a lesser extent a torque problem, were subsequently corrected by the addition of baffles within the housing. Although he listed several other changes, he maintained that "there were no major alterations. Basically, it was the same machine."

Cody was the only deponent to be cross-examined at any length by appellants' counsel. He was asked whether his propeller blew the air straight downward against the surface or whether it sent the air off the tips of the propeller by centrifugal action. Cody responded that he did not

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[15] Appellee Cody testified that the propellers were built "out of laminated wood and rasp and sandpaper and everything but teeth and fingernails." He also testified that the handlebars were constructed out of excess steel tubing found at the airport.

know how the air moved around inside the housing and that, while he did not design the propellers with any particular aerodynamic result in mind, he concluded that the air most probably moved both downward and off the tips. Counsel for appellants addressed no questions to Cody regarding the success of the grass-cutting experiments.

George Sites also testified that the device made a "fair swath" and that the engine would "pick up [the housing] and it would cut grass. It wasn't as efficient as what we wanted and wasn't what we would want to put on the market." He, too, spoke about the addition of baffles to improve the efficiency of the machine by allowing it to cut a wider area, and about other improvements made after the 1960 experiments. He was not cross-examined.

John Neill, a crop duster who was invited to watch the airport experiment, testified as follows:

> "The machine actually, I thought the first machine flew just as well as the one they built today. It wasn't as near as good looking in appearance . . . [T]he lawnmower did fly good and it performed good and it did cut good.
>
> "It definitely was cutting grass. Like I say, I think the first one did as good a job, or a better job, as some of the ones he produced later . . ."

He was not cross-examined as to the details of his observations at the airport.

Another witness to the spring, 1960, experiment, Daniel Martin, testified that he saw a "machine on the airport cutting grass that wasn't touching the ground." Although he was acquainted with Cody and had done photographic work for him on several occasions, his presence at the airport at the time of the experiment was occasioned by some work he was then performing for the local chamber of commerce. He was so "astonished" at what he saw that

he took a closer look in order to verify that it was indeed a flying lawnmower.

The final corroborating witness was James Howard Agerton, Sites' father-in-law, who testified that he viewed experiments in the fall of 1960 at his farm and that, at that time, the machine was cutting grass. Substantial tangible evidence was also introduced, including a written description of the machine which was signed by the inventors and witnessed by a third party in February, 1960; photographs of many of the parts experimented with over the period of development; cancelled checks, invoices and sales slips for the various items which were purchased and used in the machine; and several of the essential parts of the original mower.

We are unable to see how this evidence can be said to fall short of the required proof of reduction to actual practice.[16] Of course, as appellees readily admitted, the lawnmower was not commercially marketable in 1960. But it is well established that marketability is not the crucial test. *See, e.g., Kratzig* v. *Henderson*, 362 F.2d 1015, 1022 (C.C.P.A. 1966); *Toledo Scale Corp.* v. *Westinghouse Elec. Corp.*, 351 F.2d 173, 182 (6th Cir. 1965). Nor is the weight of appellees' proof mitigated because the original machine was crudely constructed or because subsequent refinements were undertaken to improve its efficiency. *See, e.g., Land* v. *Regan*, 342 F.2d 92, 98 (C.C.P.A. 1965); *Farrand Optical Co.* v. *United States*, 325 F.2d 328, 332-33 (2d Cir. 1963).

Appellants' primary contention throughout these proceedings on the issue of priority has been that the machine built and demonstrated in the spring of 1960 could not

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[16] Although lack of adequate corroboration of the inventors' self-serving assertions is frequently a central issue in patent interference disputes, on the basis of the fully developed record in this case we cannot take seriously appellants' argument that the allegations were not adequately corroborated. *See generally* III C. Revise & A. Caesar, Interference Law and Practice (1947).

possibly have operated effectively for its intended use because it lacked baffles. Since their contentions regarding the necessity of baffles also stand at the heart of the issues of patentability subsequently to be considered, it may be helpful to explain their position more fully. Appellants assert that there is a critical difference between their invention and appellees'. Their invention uses a "radical impeller," designed to shoot the air out around the edge of the housing by centrifugal force, thus creating a vacuum inward of the housing wall which holds the blades of grass in an upright position in the path of the cutting blade. Appellees' device, so appellants' contend, uses instead a mere propeller which, in the process of lifting the housing, blows the air straight down and consequently flattens the grass so that it cannot be cut. To counteract this effect, it is argued, appellees found it necessary to install deflectors or baffles inside the housing to direct the air flow off of its downward course and more toward the sides of the housing. Appellants claim that, until such time as those baffles were initiated into the device, the machine physically could not perform its intended task.

Appellants have, however, introduced no evidence in support of their aerodynamic thesis and, on the one occasion when they broached the subject in the course of briefly cross-examining Cody, they were told by him that his experience did not square with their theory. Second, all of the evidence on the question whether the machine cut grass points only one way, and it is clear and undisputed that on the occasion of the first demonstration there were no baffles in the housing.[17] Third, appellees' original patent applica-

[17] Appellants have suggested that those who testified that they saw the machine cutting grass only thought that the grass had been cut. They postulated that, in reality, the force of the downward blast of air may have merely flattened the blades of grass creating the impression that they had been severed. No evidence whatsoever has been introduced in support of this speculation and the theory was not explored in the course of cross-examination. We see no reason to credit it here.

tion provides an explanation which is consistent with the evidence. According to their theory — and they admit to a lack of complete understanding of the circulation patterns within the housing — the whirling motion of the propeller creates a partial vacuum at the vortex of the machine, lifting the grass in the more central portion of the surface beneath the housing but blowing it flat around the rim. The addition of baffles, in addition to correcting the torque problem, deflects the air in such a manner that these blades nearer the rim are shielded from the blast of air so that they also may be cut. This brief explanation is consistent with the actual experience that, without the baffles, the machine cut a relatively narrower swath. Given this articulation of the machine's operation, the baffles were not essential to a showing of reduction to practice but only operated to improve the machine's efficiency.

Finally, in conjunction with our conclusion sustaining the District Court's finding against the Board on the facts, we also agree with its determination that the Board had misapplied the only case cited in either of its two opinions — *Elmore* v. *Schmitt*, *supra*. The invention there was a binary counter which had utility as a component part when used in conjunction with computers, radar equipment, Geiger counters, or television circuits. The invention was tested in a laboratory experiment but was never tested in conjunction with any one of the devices named. Until such time as the device was tried out under operational circumstances, the court held that the requirement that an invention must be demonstrated until actual working conditions had not been met. Laboratory tests provided no more than a basis for predicting that the invention would be successful "when put to some practical use." *Id.* at 650.

The invention in this case, unlike the device in *Elmore*, was a complete unit possessing demonstrable utility. It *was* demonstrated under actual operating conditions which could in no way be analogized to mere laboratory experi-

ments offering only a hope of future worth. Although the machine was crude and lacking in efficiency, it did function satisfactorily for its intended purpose. We conclude that under appropriate legal standards the testimony in this record is such that it amply supports a thorough conviction that the Board erred in failing to find that appellees had shown reduction to practice by a preponderance of the evidence.

IV

Having concluded that appellees were the original inventors of the device in question, we are now faced with the question of whether that machine is patentable to them. Appellants have claimed throughout that, under the patentability rubric, appellees cannot prevail for two reasons: (1) the lawnmower as described in the pertinent counts in interference is not an operable device, 35 U.S.C. § 112; and (2) appellees are barred from receiving a patent because their amended application was filed outside the statutory one-year period, 35 U.S.C. § 102(b). Before we may resolve these matters on the merits it is essential that we find that they fall within the jurisdiction of this court and the District Court in reviewing interference rulings.

First, it will be helpful to trace briefly the manner in which the issues were handled by the Patent Office and the District Court in this case. The question was first raised by appellants in September, 1965, shortly after the interference was declared and before any evidence had been submitted in the proceeding. Pursuant to the Patent Office Rules of Practice, 37 C.F.R. § 1.231 (1971), appellants filed a motion to dissolve the interference on the two grounds stated above. The motion was considered by a Primary Examiner who concluded against appellants on both issues and denied the motion. The Board of Patent Interferences, in its initial opinion, briefly outlined the Examiner's findings but did not comment on them one way or the other. Resolution of the patentability claims was unnecessary to

the Board's decision since it found, based on the priority of reduction to practice issue, that appellees were not entitled to a patent. In the District Court, after reversing the Board on the question of priority, the trial judge stated that, in view of the fact that the patentability contentions were not fully explored by the Board, he did not find it appropriate to examine that aspect of the case.[17]

We find that the Supreme Court has definitely resolved this question in a manner contrary to the District Court's conclusion. In *Hill* v. *Worster*, 132 U.S. 693 (1890), on review of a suit in equity under the predecessor of the review statute in issue in this case, the Court broadly held that

> "[N]o adjudication can be made in favor of the applicant, unless the allied invention for which a patent is sought is a patentable invention. The litigation . . . cannot be concluded by solely determining an issue as to which of [the parties] in fact first made the [invention]."

Id. at 698.

The wider implications of that ruling were circumscribed in *Sanford* v. *Kepner*, 344 U.S. 13 (1952). There the party who had *lost* before the Board of Patent Interferences claimed in the district court that the device was not patentable to the party who had prevailed before the agency. The district court refused to consider the issue and the Court's opinion sustained that abstention on the ground that *Hill*

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[17] *Cody* v. *Aktiebolaget Flymo*, 163 USPQ 607, 608 (D.D.C. 1969):

> "Other defenses are urged by Flymo challenging the rationale of the Board's decision but these were not developed in any detail before the Board. It is not for the Court in this proceeding to re-examine all aspects of the Board's decision but only to review the Board's ruling on the central issue of priority . . . ."

v. *Worster* did not require that every issue of patentability raised in a *de novo* proceeding must be resolved. Rather, the principle of that decision was said to be that only in the circumstance in which the *losing* party before the Board prevails in the district court on the issue of priority does the patentability issue become pertinent.[9] Since that is precisely the circumstances in which the parties found themselves in this case, the District Court should have passed on the merits of the patentability claims. *See, e.g., General Motors Corp.* v. *R. E. Deitz Co.*, 134 U.S.App.D.C.

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[9] The reasoning of both decisions relied heavily on the terms of the statute which authorized *de novo* review of interference rulings. Of particular pertinence was the language, contained in the law in its present form, that if the dissatisfied party succeeds in the district court "such adjudication . . . shall authorize the Commissioner to issue such patent, on the applicant filing in the patent office a copy of the adjudication, and otherwise complying with the requirements of law." 16 Stat. 205, § 52 (1870). *Compare* 35 U.S.C. § 146 (1964). Under such circumstances, as the Court in Hill v. Worster noted,

> "[A] determination of [the priority] issue alone, in favor of the applicant, carrying with it, as it does, authority to the Commissioner to issue a patent to him for the claims in the interference, *would necessarily give the sanction of the court to the patentability of the invention involved.*"

132 U.S. at 608 (emphasis supplied). *See also* Sanford v. Kepner, 311 U.S. at 15 ("judicial authorization of issuance implies judicial sanction of patentability". As the distinction drawn by the cases makes clear, no such implication arises when the district court merely affirms the Board's decision.

This view, that the Patent Office is required to issue a patent to the successful plaintiff in an interference suit, has been disputed in other contexts. *See* Jeffrey Mfg. Co. v. Kingsland, 86 U.S. App.D.C. 13, 179 F.2d 35 (1949); Glass v. De Roo, 239 F.2d 402 (C.C.P.A. 1956). Since Hill v. Worster, and Sanford v. Kepner are controlling here, we have no occasion to consider the more general question regarding the extent of the Patent Office's authority in its *ex parte* proceedings to decline to issue a patent following a successful attack in the district court on a ruling of the Board of Patent Interferences.

100, 420 F.2d 1303 (1969). *Bonce v. Anderson*, 405 F.2d 605, 608 (9th Cir. 1968); *Sperry Rand v. Bell Tele. Labs.*, 208 F.Supp. 598, 602 (S.D.N.Y. 1962), *appeal dism'd*, 317 F.2d 491, 493 (2d Cir. 1963).

Ordinarily, with the issues in this posture, we would remand the case to the District Court in order that it might consider the evidence on the patentability question in the first instance. *See Tidewater Patent Development Co. v. Gillette Co.*, 273 F.2d 936, 942 (4th Cir. 1960). Here, however, both parties have pressed this court to resolve these questions. Indeed, appellants urge most strenuously that we do so. Furthermore, neither party appears to be of the view that the record is inadequate to this end. Finally, we are fortified in our inclination to reach these questions on their merits by the fact that both contentions appear to revolve around and, we find, are controlled by our disposition regarding the nonessentiality of baffles to appellees' invention.

Appellants' first claim, based on 35 U.S.C. § 112, is that the machine as appellees have designed it—using a propeller rather than an impeller—is inoperable without baffles, and that the counts in interference do not include this critical element. While it is true that appellees' original application did refer to the baffles and that the amended claims setting up the interference do not,[20] this consideration is immaterial in view of the fact, which we have found to be fully sustained on this record, that the machine operated effectively without them. The baffles merely increased the efficiency of the machine. Furthermore, there can be no doubt, as the Primary Examiner found, that the counts in interferences are readable on the invention as disclosed by appellees.

Appellants' second claim is that appellees are barred from receiving a patent because "the invention was pat-

[20] *See* note 1 *supra*.

cated or described in a printed publication in this or a foreign country . . . more than one year prior to the date of the application . . . ." 35 U.S.C. § 102(b). Again their contention stands or falls on the strength of their assertion that baffles were an indispensable element of appellees' original application. The thread of their argument is that for the same reasons relied on in their claims on the operability and priority issues the amended application filed in 1964 in order to set up an interference, which made no reference to baffles, constituted a *new device*.

If that were the case, then the "date of application" referred to in the statute would be the date of the amendment. Appellees would then be barred from obtaining a patent because a period of more than a year separated the filing of the amendment and appellants' receipt of a Belgium patent covering the lawnmower (March 30, 1962), and the publication of an article disclosing the invention in a Swedish technical journal (November 1, 1962). *See Packing Devices, Inc.* v. *Sun Ray Drug Co.*, 301 F.Supp. 768, 776, 778 (E.D. Pa. 1969), *aff'd*, 432 F.2d 272 (2d Cir. 1970), *cert. denied*, 401 U.S. 956 (1971). What we have said above regarding the inconsequentiality of the baffle structures is dispositive of this issue as well. Since the amended application simply did not describe a new device, the critical date for determining whether statutory bars exist is the date of the original application. It is not contended that, viewed as of that date, the application is subject to any such infirmity.

Therefore, it is our conclusion that, at least in so far as any of the issues raised here are concerned, appellees' invention is patentable. Having concluded that appellees also met their burden in establishing prior reduction to practice, the judgment of the District Court is

Affirmed.

CHRISTENSEN, *District Judge, dissenting:* I concur with most of what has been stated in the prevailing opinion concerning burdens of proof and the substantive rules of patent law involved; but I must dissent from its application of the rules of summary judgment. It seems likely that the decision will prove more significant as a precedent in the latter aspect than in the former, for the substantive law involved is perceptively analyzed, and accurately stated in accordance with the prevailing view, while if the decision is widely followed with respect to the propriety of summary judgment the trials of numerous types of cases which heretofore have been thought to involve questions of fact not susceptible to summary disposition will be rendered unnecessary.

The prevailing opinion, before considering the substantive issues of priority and patentability, deals with two preliminary questions: the first as to the burden of proof in the trial de novo before the district court; the second being defined as follows: "Given that standard of review, can disposition, short of a full evidentiary hearing, by way of summary judgment, ever be appropriate in a case in which the Board's conclusion is to be overturned?" Agreeing with the statement of the first question and its answer, I suggest that the second should not be based upon abstract ultimates but should consider whether under the circumstances of this particular case summary judgment could be granted without unacceptable violence to the governing concept and principle of summary judgment. In my opinion, in view of that concept and principle, the entry of summary judgment constituted error in light of the uncertain nature of the proof, varying inferences which could be drawn by reasonable minds, the absence of documentation on the critical question of when baffles were added, the presumptive correctness of the Patent Office action,[1] Cody's heavy

[1] *See* the late case of Pro-Cal Corp. v. Commissioner, 436 F.2d 296, 168 U.S.P.Q. 17 (D.C. Cir. 1970).

burden of proof before the district court[2] especially on a motion for summary judgment, the lack of a full exploration of the facts because summary judgment denied an opportunity to develop them fully at a trial *de novo*, and the limited office of summary judgment except where it is clear that there are no genuine issues of material fact. Without deciding that summary judgment on an appeal from the Board's determination should never be granted it is believed that on the record before us the required "thorough conviction" could not be properly entertained as a matter of law and without the determination of the court as a fact finder.

Fox v. Johnson & Whimsatt, 127 F.2d 729 (D.C. Cir. 1942), on the basis of which the crucial problem of summary judgment is resolved in the prevailing opinion, is distinguishable from the case at bar. Nonetheless, it may epitomize my point of departure as it seems based upon two assumptions which do not represent the prevailing, and what I think is the better, view today: (1) that if both sides file motions for summary judgment each concedes that there is no genuine issue as to any material fact and in effect consents to a waiver of trial; (2) that where there is no dispute as to circumstantial facts, a case can be decided on summary judgment even though different inferences on crucial matters might be drawn by reasonable minds from the established facts. Motion of both parties for summary judgment did not convert pre-trial proceedings into a trial nor waive the right to trial if the case could not otherwise be resolved summarily, for a party may concede that there is no issue of fact if his legal theory is accepted and yet maintain that there is genuine dispute as to material facts if the oppo-

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[2] *E.g.*, Morgan v. Daniels, 153 U.S. 120 (1894); United States v. Szucs, 100 U.S. App. D.C. 24, 240 F.2d 886, 112 U.S.P.Q. 86 (1957); *see* Esso Standard Oil Co. v. Sun Oil Co., 97 U.S. App. D.C. 154, 229 F.2d 37, 108 U.S.P.Q. 161, *cert. denied*, 375 U.S. 973 (1956).

nent's theory is adopted. American Fidelity & Cas. Co. v. London & Edinburgh Ins. Co., 354 F.2d 214 (4th Cir. 1965). Summary judgment is precluded by conflicting inferences drawable by reasonable minds from undisputed material facts which if settled against the moving party would deny him a judgment. Equal Emp. Op. Com'n v. United Ass'n of J. & A. of Plumb., Etc., 427 F.2d 1094 (6th Cir. 1970); Columbus Services v. Preferred Building Maintenance, 398 F.2d 80 (6th Cir. 1968); Frey v. Frankel, 361 F.2d 437 (10th Cir. 1966); S. J. Groves & Sons Company v. Ohio Turnpike Commission, 315 F.2d 235 (6th Cir. 1963). This is not an esoteric principle, but one that pervades the entire law with reference to the propriety of drawing issues from fact finders. Thus, a pleading must be considered as against a motion for summary disposition in the light most favorable to the pleader and with all reasonable inferences to be resolved in his favor; a motion for a directed verdict or for judgment notwithstanding a verdict is confronted with similar intendments, and in examining the sufficiency of evidence to support a judgment on appeal, appellate courts consider evidence and inferences that may fairly be drawn therefrom in the light most favorable to the party who prevailed before the fact finder. A motion for summary judgment presents issues of law, not of fact, and the purpose of Rule 56, F.R. Civ. P., is to permit expeditious disposition of cases where no substantial issue of fact is presented for determination; it is not intended that litigants shall be deprived of their right to a full hearing before a fact finder free to draw reasonable inferences among conflicting ones if any material issue of fact is tendered. *See* Black, Sivalls & Bryson, Inc. v. National Tank Company, — F.2d — (10th Cir. 1971). The confining of judgments within such limits seems to me to be an enhancement of the judicial process rather than its frustration.

I believe there were material issues of fact with reference to the vital questions of the time and sufficiency of reduc-

tion to practice which were adequate to preclude summary judgment had the decision of the Board been before the court without any presumption or intendment in its favor; under the rule that its decision should be accepted as controlling unless on trial *de novo* the court as fact finder entertains thorough conviction to the contrary, it seems inappropriate and improper on the facts of this case to have resolved the questions on summary judgment.

No hard and fast rule as to the proof essential to show reduction to practice can be laid down, and this presents the principal difficulty in ruling on such matters by summary judgment. The decision is principally one of fact in light of the applicable principles of law. It has been said that "[T]he exact extent of testing necessary to effect a reduction to practice is a matter which must be determined by the circumstances of each particular case and the nature of the device involved." St. Pierre v. Harvey, 237 F.2d 337, 43 C.C.P.A. 918, 110 U.S.P.Q. 47 (1956).

My reading of the cases indicates that the Patent Office did not so misconceive the essential elements of a reduction to practice that its decision as to the law was clearly erroneous and thus reversible by summary judgment apart from any question of fact. The trial court's memorandum perceptively analyzed the general requirements not inconsistently with the authorities; but the court ultimately tended to reduce the question to an overly simple one of whether the Cody machine was demonstrated to cut grass at all, which question it dispositively answered in the affirmative. On the other hand, the Board of Patent Interferences emphasized the requirement of practical demonstration in terms of satisfactory operation. Confirming its decision on reconsideration, however, the Board rested its conclusion on the proposition that ". . . just cutting grass, without regard for its effectiveness, is insufficient proof of the practical utility of the machine for its intended purpose under ordinary working conditions. Thus, Cody *et al.* did

not sustain their burden of proof and did not prove actual reduction to practice of the invention in issue."

Despite the variant expressions of the requirements, we think that neither the Board nor the court essentially misconceived the governing law which, on the one hand, would render insufficient as reduction to practice a mere literal cutting of blades of grass, however few or insignificant and irrespective of any practical utility in relation to its intended purpose, and yet, on the other hand, recognizes there can be a reduction to practice by an embodiment which operates imperfectly or crudely as long as it demonstrates some substantial degree of practical utility for its intended purpose. It does not appear that the decision of the Board of Patent Interferences was premised on such a definable error of law as to free the district court from applying the "clearly erroneous" or "through conviction" test. *See Silva v. Commissioner*, 122 U.S.App. D.C. 361, 353 F.2d 899, 147 U.S.P.Q. 356 (1965).

Yet if we assume that the Board erred in a too rigid or limited definition of the reduction to practice requirements, summary judgment would not be authorized nonetheless since only if there were no facts in issue which would have precluded summary judgment under a proper definition or standard for reduction to practice could the judgment be sustained.

After a careful reading, the transcript of the testimony before the Board is convincing to me that reasonable minds could differ as to its sufficiency to show reduction to practice under the proper standards. The testimony tending to support a reduction to practice is in many respects vague and unsatisfactory. In its essential aspects the proof rests importantly upon the testimony of Cody, he being a highly interested party. Evidence as to the time baffling was added to the device, which the testimony suggests was originally of dubious utility for its intended purpose, its not

documentary, consisting of a single exhibit reference. In addition, the embodiment itself had not been preserved for inspection. The fact-finder could consider these and other circumstances in arriving at a judgment whether the junior party had satisfactorily met his burden. See generally Sartor v. Arkansas Natural Gas Corp., 321 U.S. 620 (1944); 1 Bowie and Caesar, Interference Law & Practice, Chapter XXXIII § 641 *et seq.* (1948). *See also* Mieczkowski v. Shoaf, 76 U.S. App. D.C. 343, 131 F.2d 965, 55 U.S.P.Q. 221 (D.C. Cir. 1942), and Jepson v. Ezby, 251 F.2d 947, 43 C.C.P.A. 853, 116 U.S.P.Q. 251 (1958), concerning the corroboration required in interference proceedings. *Cf.* Intercheminal Corp. v. Watson, 115 F. Supp. 179, 111 U.S.P.Q. 78 (D.D.C. 1953), *aff'd*, 102 U.S. App. D.C. 149, 251 F.2d 280 (1958). I only call attention to the fact that Flynn did not cross-examine the witnesses before the Board and thus failed to

> 51. About when was it that you and John installed the baffles on the machine that you're talking about?
>
> A. That was in the fall or winter, I believe it was. It was after John Savage. The project wasn't worked on right during the heart of the season. John wasn't in this area at that time and I believe at that time, too, I was still in the Guards and I know I went to summer camp that year.
>
> 56. What sort of baffles did you install in the fall of '49?
>
> A. They were some that was attached to the spider and then some attached to the inside of the housing. They were air deflectors to correct the torque of the machine.
>
> 57. The ones that were attached to the spider, what were they for?
>
> A. For torque.
>
> 58. And the ones attached to the housing, what were they for?
>
> A. Partially for torque, too, and to let the very tips of the cutting blade out.
>
> 59. Did it accomplish that?
>
> A. Yes, it did, but still again it still wasn't as efficient well, it was efficient but it wasn't what we wanted. It was efficient to the point where it would cut grass okay but I've always been a person that if it's worth doing it's worth doing it right and we always strived for the best."

clarify any questions left by their direct testimony. I can accept this as neither shifting the burden to the senior party, or relieving Cody of his, nor as requiring the Board as the fact finder to accept without question the testimony before it. This is especially so in view of the interest of the party testifying and the long period which had elapsed between the time of the testimony and the event in question.

If the trial court were the fact finder, as indeed it would be if the summary judgment had been set aside and the case permitted to proceed to trial, there may have been sufficient factual question in the evidence already before it from the Board hearing in the absence of other evidence to permit a thorough conviction in favor of Cody despite the Board's determination to the contrary. But, other evidence at the trial, or a different but permissible appraisal of the record by the fact finder could well result in an absence of such conviction on its part.

In Poller v. Columbia Broadcasting System, Inc., 368 U.S. 464 (1962), the Supreme Court emphasized that summary judgment under Rule 56 can be granted only where the moving party is entitled to judgment as a matter of law, where it is quite clear what the truth is and where no genuine issue remains for trial, and that the purpose of the rule is not to cut litigants off from the right to trial if they really have issues to try (citing Sartor v. Arkansas Natural Gas Corp., 321 U.S. 620, 627 (1944)). *See also* Edwards v. Mazor Masterpieces, Inc., 111 U.S. App. D.C. 202, 295 F.2d [illegible] (1961); Vale v. Bonnett, 89 U.S. App. D.C. 116, 191 F.2d 354 (1951); Dewey v. Clark, 86 U.S. App. D.C. 137, 180 F.2d 766 (1950).

The Court was of the view in *Poller* that summary procedures should be used sparingly in complex antitrust litigation. I think that policy considerations, although essentially for other reasons, require that same view here, where the "thorough conviction" as a foundation for overturning

agency action could rarely be entertained without according opportunity for development of facts beyond the record which led the agency to its presumptively correct conclusion,[4] and a weighing of the testimony before the Board either with or without supplementation and the reasonable inferences to be drawn therefrom.

For the reasons stated I would remand the case to the district court for findings of fact, conclusions of law, and judgment after trial.

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLUMBIA

Civil Action No. 1654-67

JOHN F. CODY ET AL., *Plaintiffs*

v.

AKTIEBOLAGET FLYMO ET AL., *Defendants*

Filed: June 19, 1969 Robert M. Stearns, Clerk

Memorandum Opinion

This matter comes before the Court on cross-motions for summary judgment. Plaintiffs (Cody) who are residents of various states sue residents of Sweden (Flymo) under 35 U.S.C. § 146 challenging a decision of the Board of Patent Interferences dated March 23, 1967. The Board rejected the claims of Cody, the junior party, which had been set up in interference with a patent awarded Flymo.

The invention here relates to a wheelless grass cutting machine having a commonly driven rotary cutter and air

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[4] *Cf.* Stieg v. Commissioner, 122 U.S. App. D.C. 361, 353 F.2d. 899, 147 U.S.P.Q. 356 (1965).

impelling means. The air impelling means produces a fluid force against the ground to support the machine on a cushion of air at a distance above the ground during the cutting operation. The ultimate object of the invention is a grass cutting machine without wheels which is held off the grass by air pressure generated in such fashion that the machine remains in proper posture for cutting without the air pressure flattening the grass to a point that makes cutting impractical.

Flymo had a filing date of March 16, 1961, and could not go behind that date. Cody's claims were based on a structure developed in 1960. The Board found that the machine built by Cody in 1960 included structure to support the counts of the interference and showed every feature of the invention as defined in the counts. The Board, however, denied Cody's claims because Cody had failed to prove by a preponderance of the evidence that the Cody machine was "acceptable" or "satisfactory" in operation. On reconsideration by the Board this view of the proofs was stated somewhat differently. The Board indicated there had not been an actual reduction to practice which was explained in the following terms:

> No doubt the tests in April of 1960 and at later unproven dates were of an encouraging nature and may have justified a prediction that the invention would probably be successful if and when it could be put to practical use. However reduction to practice requires more than that. What is required is not a mere basis for prediction but an actual demonstration. See Elmore v. Schmidtt, 47 CCPA 958; 757 O.G. 288; 278 F. 2d 540; 125 U.S.P.Q. 653; 1960 C.D. 296 (300). [P. 340]

These determinations are erroneous in law and fact. The type of wheelless grass cutting machine involved in the interference was potentially a basic development of con-

siderable consequence in the absence of prior art. The central issue before the Board was whether Cody, the junior party with the earlier conception date, had a machine of practical efficiency and utility. *Collison* v. *Dean*, 70 F.2d 55 (10th Cir. 1934); *Burson* v. *Vogel*, 29 U.S. App. D.C. 388 (1907). Efficiency cannot be questioned. The Cody machine cut grass satisfactorily under operating conditions although the width of the cut was not in relation to the length of the blade at the optimum desired. The machine also had utility in that it was not a frivolous idea but was capable of being applied in practical affairs and had an apparent industrial value. The fact that further experimentation and refinement was deemed necessary for the machine to reach its full potential is of no consequence. The inventor was not proceeding on laboratory theory; there was actual physical practice because it was shown that the invention worked. The interference counts did not specify the width of cut and the validity of Cody's position is not destroyed by the inventor's recognition that improvements were desirable. *Hildreth* v. *Mastoras*, 257 U.S. 27 (1921).

The Board's reliance on *Elmore v. Schmitt*, *supra*, is misplaced. Without reviewing the facts of that case in detail, it is clear that the Court of Customs and Patent Appeals rejected the counts in interference because the invention had not been reduced to an actual demonstration such as encountered in its practical use but was supported solely on a basis of prediction founded on laboratory tests. The nub of the invention in this instance is a machine that cuts grass and Cody's machine cuts grass in actual fact. Flymo's counts were not based upon the utility of Flymo's invention under any specified operating conditions of terrain, slopes, type of grass or the like. Accordingly, it was not proper for the Board to reject the Cody claims merely because the Board apparently felt that Flymo's machine would work better than Cody's. Cody has the prior conception date and his structure embodies all of the major elements of the claims in interference.

Other defenses are urged by Flymo challenging the rationale of the Board's decision but these were not developed in any detail before the Board. It is not for the Court in this proceeding to re-examine all aspects of the Board's decision but only to review the Board's ruling on the central issue of priority. Priority was clearly established and there was a sufficient reduction to practice as a matter of law.

Summary judgment will be granted for the plaintiffs and defendants' cross motion for summary judgment is denied. The Board's determination is reversed and the matter is remanded to the Board for further proceedings consistent with this judgment.

Counsel shall submit an appropriate order.

(Signed) GERHARD A. GESELL.
United States District Judge

June 19, 1969.

[Filed Nov. 2, 1971]

UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT

September Term, 1971

Civil 1654-67

No. 23,575

JOHN F. CONY, ET AL.

v.

AKTIEBOLAGET FLYMO, ET AL., *Appellants*

Before: McGowan and Robinson, Circuit Judges; Christensen,* United States District Judge for the District of Utah.

Order

On consideration of appellant's petition for rehearing, it is

ORDERED by the Court that appellant's aforesaid petition is denied.

Per Curiam

[Mailed Mar. 23, 1967, U. S. Patent Office]

PAPER No. 23

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* Sitting by designation pursuant to Title 28 U.S. Code Section 292(c).

District Judge Christensen would grant appellant's petition for rehearing.

IN THE UNITED STATES PATENT OFFICE

BEFORE THE BOARD OF PATENT INTERFERENCES

Patent Interference No. 94,824

CODY AND SITES v. DAHLMAN

GRASS CUTTING MACHINES

Final Hearing

January 16, 1967

Application of John F. Cody and George W. Sites filed November 7, 1962, No. 236,108

Patent granted Karl Rudolf Dahlman November 19, 1963, No. 3,110,996, on application filed March 12, 1962, No. 178,883

Mr. Edward Taylor Newton for Cody *et al.*
Messrs. Watson, Cole, Grindle and Watson for Dahlman

Crews, Williams and Capelli, Examiners of Interferences
Williams, Examiner of Interferences

This interference involves patent No. 3,110,996 issued to Dahlman, the senior party, on November 19, 1963 on an application filed on March 12, 1962 and application No. 236,108 filed by Cody et al., the junior party, on November 7, 1962. Only the junior party Cody *et al.* took testimony. Both parties have filed briefs for and were represented by counsel at the final hearing.

During the motion period the senior party, Dahlman, moved to dissolve the interference on the grounds, (1) that

the junior party's disclosure was not sufficient to support the breadth of the counts and, (2) that the counts are unpatentable to the junior party. The Examiner denied the motion holding, as to the first ground, that the counts are clearly readable on the junior party's disclosure and, as to the second ground, that the junior party copied the counts in issue from the senior party's patent within the one year period provided by 35 U.S.C. 135.

The invention here in issue relates to a wheelless grass cutting machine having a commonly driven rotary cutter and air impelling means. The air impelling means produces a fluid force against the ground to support the machine on a cushion of air at a distance above the ground during the cutting operation.

The issue before us is set forth in three counts. Count 1 is illustrative.

Count 1

A grass cutting machine comprising a housing having a bottom opening, the peripheral edge of which is located substantially in a plane, a cutter mounted in said housing, driving means for said cutter, and a radial discharge type fan driven by said means for producing a flow of air radially to strike the housing and flowing out through said bottom opening therefrom along the peripheral edge at rates suitable for keeping said peripheral edge at a small distance above the ground by ground effect.

As junior party, Cody *et al.* have the burden of proving priority by a preponderance of the evidence. We have considered the senior party's contention that Cody *et al.* should be required to prove their case beyond any reasonable doubt. However, since Cody *et al's* application was filed prior to the issuance of the senior party's patent, and

has a sufficient disclosure to support the patent claims copied by Cody *et al.* within one year after the issuance of this patent, Cody *et al's* burden of proof need only be by the preponderance of the evidence. See Wirkler v. Perkins *et al.*, 44 CCPA 1005; 114 U.S.P.Q. 284; 1957 C.D. 385; 245 F (2) 502 and Paivinen v. Sands, 52 CCPA 906; 812 O.G. 1313; 339 F. 2d 217; 144 USPQ 1; 1965 CD 131.

The senior party, Dahlman, relies solely on the benefit of the filing date of his corresponding Swedish application. We find no question as to a corresponding disclosure in the Swedish application nor has any question been raised by Cody *et al.* as to an adequate basis in either of Dahlman's applications. We therefore find that Dahlman is entitled the benefit of the filing date, March 16, 1961, of his Swedish application.

The junior party, Cody *et al.*, bases his case for an award of priority on a contended actual reduction to practice during the spring and fall of 1960. Three witnesses, Daniel Martin, John Neill, and James Howard Ageton, have testified to having seen a machine built by Cody *et al.* during 1960. We find their testimony to establish that the machine built by Cody *et al.* in 1960 included structure to support the counts. However, in order to prove an actual reduction to practice it is not only necessary that a party prove that the constructed physical embodiment, which is relied upon, shows every feature of the invention as defined in the counts of the interference, but also it must be proved that the machine operated in an acceptable manner for its intended purpose. The intended purpose of the invention here in issue is to cut grass. All of the above named witnesses testified to the fact that the 1960 Cody *et al.* machine did operate to cut grass. However, we do not find from the record that the results of the machine built in 1960 were acceptable. Considering the inventors' own testimony with respect to the machine built in 1960 we note

that the coinventor Cody testified. (R. 49, Q. 120). to the operation as follows:

> 120: Would you describe the operation of the machine when you cut grass and I think you did say that you cut grass in April of 1960, didn't you?
>
> A. Yes. Well we were not getting a cut over the full length of the cutter blade. We were cutting more to the center and the machine had quite a bit of torque and we knew that we would have to correct both of these things.

We also find similar testimony by the coinventor Sites (R 93, 94, Q 40):

> 40. Let's go back to the first machine you build without the skirt and you tried it. I believe you told me it actually cut grass; is that right?
>
> A. Yes, sir; it cut grass. It had a torque problem and it didn't cut the grass to the best possible, what you'd really want. I mean it wasn't the ultimate in cutting grass but it did cut grass. It made a fair swath, but it wasn't giving us exactly what we wanted so we went inside and had a torque problem which we tried correcting and did correct the torque by putting air deflectors in it.

We note that both Cody and Sites testified, (R. 49-50, Q 121, -2) and (R 94, Q 41) respectively, that air deflectors and fins were subsequently added to overcome the torque and cutting problems. However, from their own testimony and exhibits it is clearly evident that a great deal of experimentation was carried on subsequent to the construction of the machine built in 1960.

For example Sites testified (R 98, Q 63-4):

> 63. I meant to say the machine; did you modify the original machine after that?

A. Oh, yes; the original machine has been modified many times.

64. Have your and John built any other machines?

A. Yes, we've built I don't know how many different models, an easy dozen different models from this first original one we're talking about up to day we've built many different models.

Further, we find Exhibits 20-22 to illustrate many different forms of propellers, torque fins, baffles and torque tabs that were accumulated as a result of the junior party's various experiments. However, we are unable to ascertain from the record when and which parts were included in a machine that resulted in satisfactory operation. We therefore find that while it is clear from the record that the junior party's device built in 1960 did include structure that would support the counts of the interference, it has not been proved by a preponderance of the evidence that the machine's operation was satisfactory.

We therefore find that the party Cody *et al.* has failed to sustain their burden of proof and the senior party Dahlman must prevail on the basis of his constructive reduction to practice of counts 1-3 by the filing of his involved application.

Priority of invention of the subject matter in issue is hereby awarded to Karl Rudolf Dahlman, the senior party.

MAURICE A. CREWS
Examiner of Interferences

LA VERNE WILLIAMS
Examiner of Interferences

STEPHEN W. CAPELLI
Examiner of Interferences

Board of Patent Interferences

[Mailed Jun. 1, 1967, U. S. Patent Office]

PAPER NO. 26

IN THE UNITED STATES PATENT OFFICE

BEFORE THE BOARD OF PATENT INTERFERENCES

Patent Interference No. 94,824

CODY AND SITES V. DAHLMAN

Reconsideration

On March 30, 1967, Cody *et al.* filed a request for reconsideration of our decision (paper No. 23) mailed on March 23, 1967. On April 12, 1967, Dahlman filed a reply to the above-noted request.

In their request Cody *et al.* also request an oral hearing. It is not our usual practice to grant an oral hearing on a request for reconsideration and we have found no facts or circumstances in this case which would warrant a departure from that practice. The request for oral hearing is denied.

In their request Cody *et al.* assert (page 2) that the Board overlooked the two facts that

> (1) . . . the April, 1960 machine operated very well and satisfactorily;
>
> (2) . . . by the fall of 1960, the machine was cutting at the tip of the blade.

They then point to certain testimony of Cody, Sites, Neill, and Martin relating to machine operation and argue at length that the Board's conclusions and decision are in error.

We did not overlook the testimony referred to by Cody *et al.* and we regard it as being obvious from our quotations of portions of the testimony and the discussion on pages 4-6 of our decision that the *overall* record was considered

by us. Such consideration did not convince us that Cody *et al.* had proved, with the required preponderance of evidence, that the machine built and used in April of 1960, or as modified in some indeterminate manner at any particular proven date in the fall or winter of 1960-61, did in fact operate in a satisfactory manner for its intended purpose.

No doubt the tests in April of 1960 and at later unproven dates were of an encouraging nature and may have justified a prediction that the invention would probably be successful if and when it could be put to practical use. However reduction to practice requires more than that. What is required is not a mere basis for prediction but an actual demonstration. See Elmore v. Schmitt, 47 CCPA 958; 757 O.G. 288; 278 F. 2d 510; 125 U.S.P.Q. 653; 1960 C.D. 296 (300).

We believed when reaching our original decision and we still believe that just cutting grass, without regard for its effectiveness, is insufficient proof of the practical utility of the machine for its intended purpose under ordinary working conditions. Thus, Cody *et al.* did not sustain their burden of proof and did not prove actual reduction to practice of the invention in issue.

The request for reconsideration is granted to the extent that we have reconsidered our decision; it is denied with respect to making any change therein.

MAURICE A. CREWS
Examiner of Interferences

LA VERNE WILLIAMS
Examiner of Interferences

STEPHEN W. CAPELLI
Examiner of Interferences

Board of Patent Interferences

Nov. 19, 1963 K. R. DAHLMAN 3,110,996

GRASS CUTTING MACHINES

Filed March 12, 1962

Fig. 1

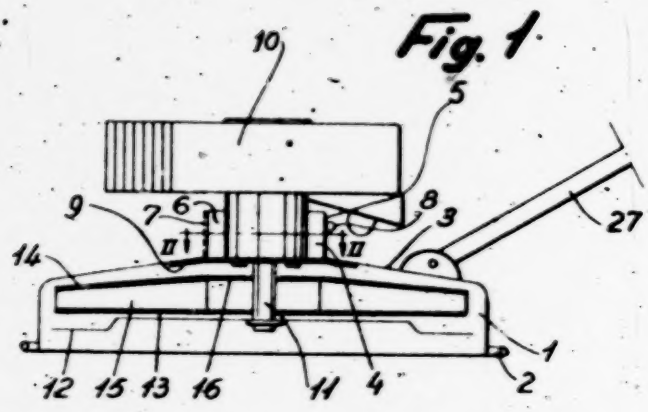


Fig. 2

Fig. 3

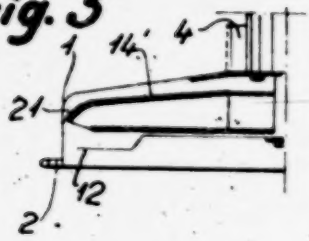


Fig. 5

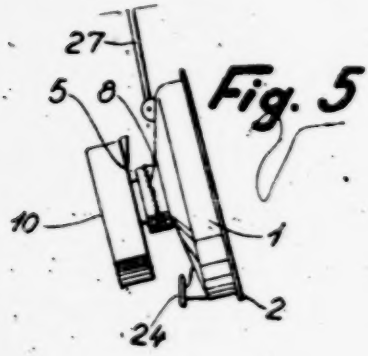
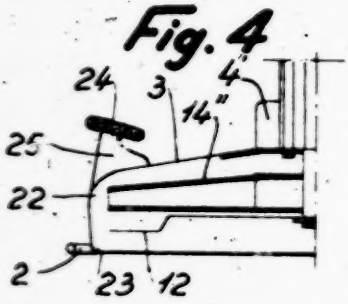


Fig. 4



INVENTOR.
Karl R. Dahlman

BY
Watson, Cole, Grindle & Watson

ATTORNEYS

United States Patent Office

3,110,996
Patented Nov. 19, 1963

3,110,996

GRASS CUTTING MACHINES

Karl Rudolf Dahlman, Malmo, Sweden; assignor to Aktiebolaget Flymo, Malmo, Sweden, a corporation of Sweden

Filed Mar. 12, 1962, Ser. No. 178,883
Claims priority, application Sweden Mar. 16, 1961
13 Claims. (Cl. 56—25.4)

This invention relates to a grass cutting machine, e.g. for use as a lawn mower or a crop harvesting machine.

More particularly, the invention relates to a grass cutting machine of the type having a power operated cutter. Such grass cutting machines are usually constructed with a frame surrounding the operating area of the cutter, the said frame being supported on rollers to keep the cutter at a suitable distance above the ground. The said frame and rollers are of considerable inconvenience in various respects. Thus, they form an obstacle to the cleanness of cutting around trees and along walls, borders of a lawn etc. Moreover, the frame and rollers add considerably to the weight and manufacturing costs of the grass cutting machine. A further disadvantage is that the cutting result will depend very much on the smoothness of the ground. Also, in the case of rugged or stony ground, it is difficult to control the movement of the grass cutting machine. It may be mentioned, also, that in the case of grass cutting machines in which the cutter is surrounded by an open bottomed hood, it is usually necessary to arrange the supporting rollers in such a manner as to keep the bottom edge of the hood at a considerable distance above the ground in order to prevent accidental bumping of the hood into the ground. It is therefore often felt necessary to provide protective screening means to prevent access to the interior of the hood under the bottom edge. Such screening means further add to the encumbrance, weight and manufacturing costs of the machine.

It is an object of the invention to provide a grass cutting machine in which the above mentioned drawbacks are eliminated or reduced.

According to the invention, in order to eliminate the necessity of supporting rollers or similar supporting structure, use is made of the so-called ground effect, i.e. the physical phenomenon that an object can be supported at a distance above the ground on a cushion of air produced by a flow of air generally directed towards the ground beneath the object. Thus, according to the invention, a grass cutting machine of the type referred to is provided with air impelling means to produce such a cushion of air under the machine.

Other features, objects and advantages of the invention will be apparent to those skilled in the art from the following detailed description of one embodiment thereof and various modifications, reference being made to the accompanying drawings in which

FIG. 1 shows a grass cutting machine partly in section,

FIG. 2 a section along the line II—II in FIG. 1,

FIG. 3 a partial section through the hood and the ventilator wheel showing a somewhat modified construction of the latter,

FIG. 4 illustrates the provision of an auxiliary supporting roller on the top of the hood of the machine, and

FIG. 5 illustrates the transportation of the machine in tilted position with stationary motor.

In the drawing, 1 is a hood which is constructed substantially in the form of a short cylinder. At one end of the hood, the edge of the latter is bent outwards and rolled upon itself to form a supporting rim 2 surrounding the open bottom of the hood. At its other end, the hood comprises a slightly domed roof or cover portion 3. Centrally of the cover portion 3 there is provided an opening 4, which is surrounded by an axial flange 5 forming an air inlet chamber. An air inlet opening 6 is provided along part of the circumference of the flange 5, said opening being covered by a protecting grid 7 which is held in position around the flange 5 by means of a spring 8. Two mutually parallel supporting bands 9 are mounted on the inner side of the cover portion 3 of the hood 1 in positions to extend across the opening 6, said supporting bands serving for the attachment of a motor 10 such as a gasoline operated engine. The shaft 11 of the motor 10 extends centrally into the hood 1 and carries a ventilating wheel and a cutter 12. According to FIGURE 1, the ventilating wheel or blower consists of two circular discs 13 and 14 having a plurality of substantially radially extending ventilator blades 15 mounted therebetween. Each of the ventilator blades 15 is wider at its end facing the shaft 11 than at its end remote therefrom. The upper circular disc 14 is provided with a central opening 16 for the intake of air.

FIGURES 3 and 4 show diametrical sections through two different forms of the ventilating wheel and the hood. In FIG. 3, the upper circular disc 14' is bent downwards at its periphery at 21, whereby a more powerful downward flow of air is obtained. In FIG. 4, the upper disc 14" is slightly conical and the wall of the hood is constructed with a rounded portion 22 at the transition between the cover portion 3 and the cylindrical skirt portion extending downwards therefrom. Moreover, the bottom end of the hood is bent slightly inwards at 23 so that the mouth of the hood becomes somewhat restricted. In this manner the wall of the hood has a slight inward inclination along its inner edge and the flow of air discharged from the ventilator is deflected by the rounded portion 22 and the inclined wall portion of the hood towards the centre of the grass cutting machine, whereby the grass coming in under the flange 2 is automatically lifted so that the cutter 12 will cut more cleanly and efficiently.

FIG. 4 also illustrates the provision, on the top of the hood, of an inclined auxiliary supporting roller 24 which is mounted on the hood by means of a bracket 25. The supporting roller 24 is intended for facilitating the transportation of the grass cutting machine when its motor is stationary. The grass cutting machine is then tilted in such a manner that the whole of the machine is supported on the supporting roller 24, as illustrated in FIG. 5.

The hood is constructed with a handle bar 27 which is preferably connected to the portion of the hood diametrically opposite to the air intake opening 6 or 18 and the supporting roller 24.

In operation, when the motor of the grass cutting machine is started, a cushion of air is formed under the machine by the so-called ground effect, whereby the machine is supported on said air cushion at a small distance above the ground. The machine can easily be manoeuvred by means of the handle bar 27, and a certain stabilization in the lateral direction is obtained by the fact that the air intake is directed in the presumed principal direction of movement of the machine.

It will be seen that in the embodiment shown, the ground effect is produced by means of a ventilator in the form of the centrifugal blower having distinct radial passages opening at a small distance from the peripheral wall of the hood, while the ends of the blades of the cutter, which form the principal cutting zone, are located substantially directly below the discharge openings of the passages. This fan is a radial discharge type blower as the conical-plate-fan type described in FIGURE 6 of page 335 in the publication Engineers' Illustrated Thesaurus, published 1952 by Chemical Publishing Co., Inc., New York, N.Y.

It might be expected that the power required for the operation of the ventilator or air impelling means would necessitate the use of a bigger and heavier motor than in known machines of the type considered, but in practice it has been found that this is not at all so. On the contrary, it has been found that a machine according to the invention, when equipped with a motor of a certain size, has a cutting capacity at least equalling that of a known machine supported on rollers, when equipped with an identical motor.

It has also been found that with a grass cutting machine constructed as described, ground effect of an appreciable value will be produced even if part of the area of the bottom opening of the hood is at a considerable distance from the ground, e.g. when grass is to be cut along the edge of a lawn which is elevated relative to the surroundings, or when grass cutting is to be effected on a curved or irregular surface of the soil. The reason for this probably is that the radial passages of the blower will produce positive flows of air down along the cylindrical wall of the hood so that ground effect will be produced along such edge portions of the hood as are at a small distance from the ground.

The supporting roller 24 need not necessarily be provided, but on the contrary will usually be superfluous in the case of lawn-mowers for ordinary garden work, since these will be sufficiently light-weight for carrying by hand. For larger size machines, however, the supporting roller is of interest though other means may also be used for the transportation of the machine. E.g., the machine may be constructed with a special carrying handle for transportation by one or two persons.

It will be understood that it is an advantage of the grass cutting machine according to the invention that no supporting means have to be provided outside the hood of the machine so that the machine may be run closer to trees and other obstacles than machines constructed with such supporting means. Moreover, special screens or other safety arrangements to prevent access to the interior of the hood under the bottom edge thereof are superfluous because in operation the edge will only be lifted slightly from the ground. For the same reason there is no danger of stones being hurled out from under the machine so that no safety measures have to be taken to safeguard against accidents arising therefrom.

The grass tops cut off by means of the blades will be blown out from under the machine by the same flow of air as that producing the ground effect, and will therefore be uniformly spread over a large area and will not collect in heaps necessitating raking of a lawn after it has been mowed.

Additional advantages of the new grass cutting machine are its simplicity of construction permitting the machine to be manufactured at low cost, as well as the reduced encumbrance of the machine for a certain cutting capacity, its low weight and its ease of operation.

I claim:

1. A grass cutting machine comprising a housing having a bottom opening, the peripheral edge of which is located substantially in a plane, a cutter mounted in said housing, driving means for said cutter, and a radial discharge type fan driven by said means for producing a flow of air radially to strike the housing and flowing out through said bottom opening therefrom along the peripheral edge at rates suitable for keeping said peripheral edge at a small distance above the ground by ground effect.

2. A grass cutting machine comprising a housing having a bottom opening, the peripheral edge of which is located substantially in a plane, a rotary air impeller mounted on a shaft in said housing, a rotary cutter mounted in said housing below said air impeller on the same shaft, and driving means for said rotary air impeller and said rotary cutter, said air impeller being constructed to expel air through said bottom opening along paths and at rates suitable for slightly elevating said housing and parts carried thereby from the ground by ground effect.

3. A grass cutting machine as in claim 2, in which said impeller is constructed to discharge into a zone in said housing located above said cutter and substantially radially outside the operating area thereof.

4. A grass cutting machine comprising a housing having a substantially vertical cylindrical wall defining a cylindrical compartment within said housing and terminated at its bottom with a substantially circular edge, a centrifugal blower mounted substantially co-axially in said cylindrical compartment and constructed with radial passages having their outlet ends located at a small distance from said cylindrical wall, a rotary cutter mounted in said cylindrical compartment below and co-axially with said blower, common driving means for said centrifugal blower and said rotary cutter, said rotary cutter being constructed with blades having their ends located at a small distance from said cylindrical wall, said centrifugal blower being constructed to discharge air at a rate sufficient for slightly elevating said housing and parts carried thereby from the ground by ground effect.

5. A grass cutting machine comprising a hood having a top cover portion and a skirt portion, the latter being substantially shaped as a vertically disposed cylinder terminated at its bottom with a supporting rim, a motor attached to said top cover portion, said motor having a vertical shaft extending into the space within said skirt portion, an air impeller mounted on said shaft, a rotary cutter mounted on said shaft below said air impeller; an air inlet opening disposed centrally of said top cover portion, said air impeller being constructed to suck in air through said air inlet opening and to expel air through the open bottom of said hood at a rate sufficient to slightly elevate the assembly of said hood, motor, air impeller and rotary cutter from the ground by ground effect.

6. A grass cutting machine comprising a hood having a top cover portion and a skirt portion, the latter being terminated at its bottom with a supporting rim, a rotary radial discharge type fan air impeller mounted in said hood, a rotary cutter mounted in said hood below said air impeller, means for driving said rotary air impeller and said rotary cutter, an air inlet on the top of said top cover and connecting with a central opening thereof, said air inlet having a laterally disposed air intake opening, said air impeller being constructed to suck in air through said air inlet to discharge the air radially against said skirt portion and to expel air through the open bottom of said hood at a rate sufficient to slightly elevate the assembly of said hood, driving means, air impeller and rotary cutter from the ground by ground effect.

7. A grass cutting machine as in claim 6 comprising a protecting grid to cover said lateral air intake opening.

8. A grass cutting machine comprising a hood having a top cover portion and a skirt portion, the latter being terminated at its bottom with a supporting rim, a rotary air impeller mounted in said hood, a rotary cutter mounted in said hood below said rotary air impeller, driving means for said rotary air impeller and said rotary cutter, a radially disposed inlet passage provided outside said top cover and connecting with a centrally disposed opening thereof, said radially disposed passage having an intake opening at the end thereof remote from said opening of the cover portion, said rotary air impeller being arranged to suck in air through said passage and said opening of the cover portion and to expel air through the open bottom of said hood at a rate sufficient to slightly elevate the assembly of said hood, driving means, air impeller and rotary cutter from the ground by ground effect.

9. A grass-cutting machine as in claim 8 comprising a protecting grid to cover said air intake opening.

10. A grass cutting machine as in claim 1 comprising a handle bar pivoted to said housing for pivoting about a substantially horizontal axis.

11. A grass cutting machine as in claim 1 and further

comprising an auxiliary supporting wheel mounted on the top of said housing and having its axis directed at an angle to permit said housing to be supported on said roller in a tilted position for transportation.

12. A wheelless grass cutting machine having a power operated rotary cutter and commonly driven air impelling means for producing ground effect to support said machine on a cushion of air at a distance above the ground.

13. A grass cutting machine comprising a hood having a top cover portion and a skirt portion, the latter being terminated at its bottom with a smooth supporting rim located in a plane and being of a cross-sectional shape suitable for sliding on the ground, a radial discharge type blower mounted in said hood on a shaft perpendicular to the plane of said rim, a rotary cutter mounted on said shaft below said blower, and a driving motor for said shaft.

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[Filed Dec. 15, 1971]

UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT

September Term, 1971
Civil 1654-67

No. 23,575

JOHN F. CODY, ET AL

v.

AKTIEBOLAGET FLYMO, ET AL, *Appellants*

Before: McGowan and Robinson, Circuit Judges; Christensen,* United States District Judge for the District of Utah.

Order

On consideration of appellants' motion for stay of mandate and assessment of casts and it appearing that this Court's opinion and certified copy of the judgment was issued to the District Court on November 11. 1971, it is

ORDERED by the Court that the Clerk of the District Court is directed to return the aforesaid opinion and judgment to this Court and, it is

FURTHER ORDERED by the Court that the Clerk is directed to stay the reissuance thereof for a period of 90 days from November 2, 1971, said stay to be subject to the provisions of Rule 41(b) of the Federal Rules of Appellate Procedure and, it is

FURTHER ORDERED by the Court that appellants' motion for costs to be assessed against the appellee on the basis that the District Court was reversed in part, is denied.

Per Curiam

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* Sitting by designation pursuant to Title 28 U.S. Code Section 292(c).